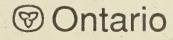


# What We Heard

A Report on Public Consultations on Conserving Old Growth Red and White Pine

Old Growth
Policy Advisory Committee



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This report was prepared by Jeff Solway, Nashwaak Consulting, Toronto for the Old Growth Policy Advisory Committee.

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The Old Growth Policy Advisory Committee c/o The Old Growth Conservation Initiative Ontario Ministry of Natural Resources 199 Larch Street, 10th Floor Sudbury, Ontario, P3E 5P9 Telephone: 1-800-268-4218; FAX: (705) 688-3086

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## Table of Contents

Sun	ımary	1
1.	Introduction	5
1.1	Background and Mandate	5
1.2	The Public Consultation Process and this Report	6
1.3	The Public Response.	8
	Understanding Old Growth Forests	
2.1	A Definition of Old Growth	10
2.2	Succession, Fire, and Age Classes	12
2.3	Toward a Classification System to Identify, Model	
	and Plan for Old Growth	15
3.	Perspectives on Protection	
3.1	A Matter of Values	18
3.2	Inherent Arguments for Protection	19
3.3	Ecological Arguments for Protection	.20
3.4	Pragmatic Arguments for Protection	.22
3.5	Looking Beyond Old Growth	22
3.6	The Question of Scale	23
4.	Economic Concerns	
	The Reality of Economic Hardship	
	Are Closures Inevitable?	
4.3	The Need for Information	.28
4.4	The Question of Balance, Revisited	.29

5.	Regional	Concerns	30
6.	Strategic	Implications	
6.1	Strategic	Questions/Critical Information	34
6.2	Views on	the Conservation Strategy	36
6.3	Reorientin	ng Forestry	37
6.4	Institution	nal Challenges	38
App	endix A:	Members, Old Growth Policy Advisory Committee	41
App	endix B:	Members, Scientific Advisory Committee	42
Apr	endix C:	Methodology Used in the Preparation of this Report	43

# Summary

In the late 1980's, conflicts over logging in Ontario's old growth red and white pine forests increased significantly. In January of 1992 the Ministry of Natural Resources (MNR) responded by establishing a Policy Advisory Committee (PAC) to make recommendations for conserving old growth forest ecosystems. PAC is an independent committee of citizens representing a wide range of public interests. It is supported by a Scientific Advisory Committee and a Secretariat.

PAC is to operate for two years. Its task in the first year is to develop interim recommendations for red and white pine. At the end of year two it is to produce a final report with recommendations for the conservation of all types of old growth forest ecosystems.

Public consultation is a crucial element in PAC's approach. Its public consultation program included six workshops (attended by over 500 people), a questionnaire (completed by 250 people), and a call for letters and submissions (almost fifty were received). Public input was generally constructive and positive.

Most people supported a considerable degree of protection for old growth red and white pine. But many argued that the nature of red and white pine forest succession in Ontario makes it impossible to "preserve" old growth. Red and white pines eventually die, and, in the experience of people taking this view, they usually are replaced by *other* species, particularly in the absence of fire.

The solution suggested by many people is to focus on protecting and maintaining red and white pine *in all age classes*. As one person said, "If we are to have old growth forests in the future, we must have young forests today." This perspective took the consultation beyond the protection of specific tracts of old forest, to the notion of *management* for red and white pine.

"You cannot approach this on a purely scientific or ecological basis. The issue involves not just biological ethics, but also social ethics."

"You only have to look at the problems of getting back a natural asset that has been lost to realize that when you have an asset you hang onto it."

However, there remains great concern about today's old growth red and white pine forests, particularly since so little is left. Support was strong for interim protection for all of these stands. Some participants said that interim protection would be acceptable if decisions can be made quickly on which stands should receive continued protection. Participants from the forest industry, and others, emphasized that a lengthy freeze would be highly damaging to the industry, even if it was later reversed.

Of our existing old growth, it was argued that some should be protected from *all* human intervention. The unique ecological, esthetic, and spiritual qualities of such forests were mentioned frequently and widely acknowledged.

Other existing old growth, many people felt, should be *managed* for old growth characteristics and pine succession. This would involve the use of fire and other techniques to increase the amount of pine in all age classes.

There was also support for a strategy that uses ecologically oriented forest management practices to gradually return a larger portion of Ontario's forest to a species and age class mix more representative of the landscape prior to settlement by Europeans. The result would be more red and white pine, and more old pine, than we have in Ontario today. From an ecological point of view, this would increase habitat for plant and animal life that may depend on old growth red and white pine forests:

As well, it was clear that many of those consulted did not see the issue in terms of trees or stands, but in terms of ecosystems. Said one person, "Old trees are part of a natural cycle. If our goal is to protect old growth forests, we don't protect the trees, we protect the cycle, the natural cycle that enables those trees to occur." There was general agreement that ecosystem protection is of paramount importance, in that without ecosystem health we will lose all the benefits that accrue from forests.

While individual trees and small stands may warrant protection, it is only in large stands and forests, or in smaller tracts connected by old growth corridors, that the species mix and interdependencies of an old growth ecosystem will be maintained. Moreover, people pointed out, there are many different types of old growth red and white pine ecosystems in Ontario. It is vital that none of these forest types be lost.

In addition, many people argued that forest management must be site—and region—specific, with ecological, cultural, esthetic, economic and other factors taken into consideration when deciding which old growth to protect, in what manner, and how to manage for more pine and more older forests in the future.

Such decisions, many people said, are not to be taken lightly, given the possible economic impacts of old growth protection in some communities across Northern Ontario. Since much of today's pine is already old, some people felt that blanket protection was both a waste of a valuable natural resource, and an unfair, "induced" economic hardship that would have a disastrous "ripple" effect as mills close. People involved in or dependent on the red and white pine forest industry emphasized repeatedly that a pine inventory must be used to determine whether the *existing* level of protection is in fact adequate.

However, it was thought by some consultation participants that commercial forestry can be carried out in an ecologically sound manner. They suggested that a reoriented forest industry could be economically viable, while restoring and preserving the health of forest ecosystems, providing diversity of wildlife habitats, increasing the pine component, and increasing the old growth component.

In its search for forestry alternatives, PAC was encouraged to explore west coast initiatives in "New Forestry". The basic idea driving New Forestry is that sustaining biological diversity and maintaining long—term ecosystem health, on a landscape basis, is the primary objective of forest management, with timber production viewed as one of the by—products of this primary objective.

Because Ontario's forests differ so dramatically from those on the west coast, direct transfers of many New Forestry practices may not be possible. Nevertheless, many people felt that the principles of New Forestry can be applied in Ontario.

"It is important to recognize that old growth on any particular site may well be succeeded by a forest community which bears little resemblance to the existing stand."

"The objective must be to adopt forestry practices which make sustainable forestry economically viable." Looking back over PAC's first year, it is apparent that the many people consulted have helped to clarify the fundamental, strategic policy issues. For example, how much red and white pine do we have in Ontario? How much red and white pine *should* we have in Ontario? How do wild area issues relate to the conservation of old growth forests? People felt that questions such as these could not be answered without more information. Especially, more information is needed on our inventory of the existing pine resource, and on the social, ecological and economic implications of various possible strategies.

## 1. Introduction

## 1.1 Background and Mandate

Since the first arrival of European settlers in Ontario, the forests have shrunk in size and changed in character. Change is natural and inevitable in the forest, and is often induced on a grand scale by fire, but the changes wrought by the settlers have been outside the natural cycles.

In retrospect, two human practices stand out. In recent decades we have quite successfully controlled fire. And since the beginning of commercial logging, the biggest and most commercially valuable trees have almost invariably been cut first.

The "best" trees, in an Ontario softwood context, have been large, red and white pines. Often (not always), the largest are the oldest. So by cutting the best we have gradually reduced the stock of old red and white pine. To complicate matters, we now find that fire control has discouraged the regeneration of these species.

Until very recently, this was accepted as the price of progress. But in the late 1980's, long standing forest—use conflicts intensified in some regions, particularly over the cutting of old growth red and white pine. The Ontario government responded by deferring harvest in several old growth red and red pine areas and commissioning studies to increase knowledge of this forest type.

In January, 1992, the then Minister of Natural Resources, The Honourable C.J. (Bud) Wildman, established an independent Policy Advisory Committee (PAC) and a supporting Scientific Advisory Committee (SAC) to develop recommendations for conserving old growth forest ecosystems in Ontario. As well, MNR established a Secretariat to provide information and administrative support to the Committee.

The Committee members were selected from various areas of the province for their ability to represent the various "publics" concerned

"The Minister asked us to develop our old growth strategy in two steps, looking at red and white pine first, because there is a very high level of interest and concern about those species."

PAC Member, Pembroke Workshop "PAC's mandate is to develop a province-wide, policy level recommendation. But we do want to listen to vour local and regional views so that we'll have a better understanding of local and regional implications as we develop an interim provincial strategy."

PAC member, Pembroke Workshop about old growth forests. (See Appendix A for a list of PAC members, with affiliations.) PAC was asked to recommend a working definition of old growth forest ecosystems; to identify information needs for locating and cataloging old growth forest ecosystems; to describe the particular biological, social, cultural and economic values associated with these ecosystems; and to develop a framework for the conservation of representative old growth forest ecosystems now and into the future. In addition, the Committee was to identify resource management practices that may be used to maintain old growth.

Because of the level of public concern about red and white pine, the Committee was asked to focus on these species in its first year, culminating in an interim report. At the end of its second and final year, it is to deliver a report covering all types of old growth forest ecosystems. PAC's reports do not directly make policy, but as recommendations to the Minister, they are expected to be highly influential. To ensure an optimal response in policy, PAC is quite concerned that its recommendations be pragmatic and achievable, both in provincial policy making, and in the field.

In the course of its work, PAC is expected to draw on its Scientific Advisory Committee for a strong natural science foundation; and to consult the public extensively. This report summarizes the public input to date, at the end of the Committee's first year of operation.

# 1.2 The Public Consultation Process and this Report

PAC's members bring to the committee a diversity of experience: public advocacy, professional forestry, forest industry union work, mining and prospecting, First Nations initiatives in forest stewardship, environmental consulting, the clergy, and high school science education.

While this breadth is vital in such a committee, it means time must be spent learning. Since its formation in January of 1992, PAC has met in two-day working meetings each month, with subgroup and individual work between meetings. The first few months were devoted to learning about old growth, forest ecology, and related technical mat-

ters; to understanding each other's perspectives; and to learning how the old growth forest initiative fits within the broader, sustainable forestry discussions going on within MNR.

The next few meetings were devoted to designing and preparing for the Committee's public consultation program. In addition to an ongoing series of informal consultations, the public consultation program included the following:

- Preparation and distribution of a Discussion Paper, to provide basic information on the Committee and old growth forests, to define terms, to present a tentative definition of old growth forests, to open the discussion on values, and to outline some possible interim strategies;
- Preparation and distribution of a questionnaire;
- Public workshops in Pembroke, Guelph, Thunder Bay and Sudbury;
- A "sectoral" workshop in Toronto for representatives of organizations with a particular interest in old growth forests;
- A workshop in Sudbury for professional forest resource managers from both the private and public sectors.

In each of the workshops PAC presented the same questions they posed in the questionnaire, looking in turn at the definition of old growth, at values, and at interim management options for red and white pine. In addition, regional concerns were discussed at each workshop.

To help stimulate public discussion on a conservation strategy for old growth red and white pine, PAC presented a set of options. These included "full protection" of existing old growth red and white pine stands; continued logging under existing regulations; and intermediate options along a continuum: from a strategy with a considerable degree of old growth protection and minimal human intervention, logging or other high impact uses; to a strategy in which some old growth would be retained and managed for old growth characteristics, while most would continue to be cut under the existing "oldest first" rationale. Workshop participants and questionnaire respondents were asked to state which option they favoured.

For information on the methodology used in preparing this report, please see Appendix C.

"We don't want to take a system that has been applied in Europe or B.C. and apply it to Ontario. That's why the main focus in this public consultation session is to find out what vou believe are the values, the priorities, and the directions that will suit Ontario, now and when the next generations come along."

PAC member, Guelph Session

#### 1.3 The Public Response

About 450 people attended the four public workshops, including representatives of community and environmental groups, foresters, academics, scientists, forest industry managers and workers, aboriginal people, government representatives, field biologists, ecologists, cottagers, naturalists, and other concerned citizens.

The Sectoral workshop included representatives of environmental and conservation groups; unions; the forestry, farming and mining sectors; municipalities and other land management authorities; First Nations band and tribal councils; universities; independent research centres; government agencies; crown corporations; and professional associations.

The Resource Managers workshop brought together over forty forest management professionals from across Ontario. This group has direct professional involvement in forest management on a day to day basis. Workshop participants included public and private sector field foresters, environmental consultants; First Nations representatives; Parks managers; and MNR district managers, biologists, ecologists, planners and policy advisors.

In addition to input through its workshops, the Committee received almost fifty letters, over 250 completed questionnaires, and several detailed submissions. Generally, the response to the consultation program was quite positive.

The *nature* of the response to the consultation was highly constructive. In workshops, diverging views were aired in an atmosphere that did not become rancorous, and several participants commented on the ability of people from different viewpoints to work together constructively.

However, a few people were doubtful about the exercise, raising a number of concerns: whether further scientific study should come before public consultation; whether the public is adequately informed to contribute to public policy development; whether the formation of a citizens committee represents an abdication of government responsibility; whether the entire initiative may be more indicative of politi-

"I salute you in your public consultation approach. Grassroots is definitely the way to go. Good luck!"

cal expediency than a response to a real problem; and whether the exercise is a fateful delay while the last old growth forests are cut down.

These were minority sentiments. Nevertheless, while most participants and questionnaire respondents welcomed the opportunity to participate, many people appeared frustrated for one or more of the following reasons:

- Some people found the terms used in the discussion paper difficult to grasp.
- Many expressed concern that the discussion was limited to red and white pine at this time.
- Some had difficulty with a session that opened discussion but was not designed to seek or reach consensus.
- Considerable numbers expressed concern about lack of information.
- Some found it difficult to move on to a discussion of strategy without a clear, agreed upon definition of old growth.

Concern about lack of information was one of the dominant themes throughout the public consultation process. Information was requested in several areas:

- the potential social, ecological and economic implications of various possible strategies, including dollar costs where feasible and appropriate;
- the location and size of existing old growth red and white pine stands in both protected areas and in areas available for harvest;
- succession processes and the status of pine regeneration.

work for MNR in Atikokan. We've been through the old arowth controversy for the last eight months. The really nice thing about this evening, from the standpoint of the guy that gets caught in the middle, is that we've got some loggers and we've got some environmentalists here, and everybody is talking. I think we made some progress here tonight."

Participant, Thunder Bay Workshop

# 2. Understanding Old Growth

2.1 A Definition of Old Growth

To stimulate public comment and debate, the Policy Advisory Committee presented a possible definition of old growth in its Discussion Paper: "Old growth forests are relatively old and relatively undis—turbed." The definition was recommended by the Scientific Advisory Committee, and is drawn from the work of Professor Malcolm Hunter of the University of Maine. Accompanying this definition was a set of criteria, in the form of questions, that might be used to help draw age and disturbance into sharper focus. As a further stimulant, the Discussion Paper included a short piece entitled, "What is Old Growth?" The article noted that most of what is known about old growth comes from research in the Pacific Northwest region of the United States, and it listed a number of characteristics identified in that research which may apply to old growth in Ontario.

In workshops, questionnaires, letters and submissions, the response to these discussion starters was remarkably consistent. Many people felt that the definition provided was too vague and, therefore, it would be too difficult to apply in the field; that many of the criteria listed do not apply to the species and forest conditions in Ontario; and that the emphasis should be on the forest ecosystem and all its components, not just the trees.

A number of other points were made by many participants:

- The focus should be on age, not size. Depending on species and growing conditions, very old trees can be quite small.
- For red and white pine, "old" can most usefully be defined as older than the present commercial rotation age. That is, older than the age by which most red and white pine are usually cut. The age most often suggested at which the "mature" phase begins, for red and white pine, was 120 years.

made up of a complex array of communities which together form a functioning whole. Old growth has not been put into the context of the whole forest. Old growth is part of a bigger system."

• Distinctions must be made between individual trees, stands and for – ests. While individual trees and small stands may warrant protection in certain circumstances (for example, when in or near human communities), it is only in large stands and forests that the functions of an old growth ecosystem will be found, together with the flora and fauna associated with that stage in forest development.

Discussions about disturbance were lengthy and far ranging. A point made often and emphatically is that red and white pine, along with many other Ontario species, have evolved in the presence of fire and regenerate with more difficulty when fire is suppressed.

There was less consensus on the significance of *human* disturbance. For some of the public, old growth is synonymous with wilderness, the complete absence of human interference, except possibly for research and some recreational activities. Others saw old growth as a vital component in forests with a "natural" age and species mix, but they did not feel that such forests need to be wilderness, totally reserved from intervention. Others saw old growth as merely trees and stands beyond the conventional rotation age. And still others saw old growth as "over mature", rapidly losing commercial value, and a waste of a valuable resource.

The old growth as wilderness perspective contends that we need such tracts to understand nature; for our own fulfillment at an esthetic and spiritual level; as wildlife habitats; and as a vital (if barely understood) component in the life of the planet. From a biological viewpoint, wilderness is seen as both a laboratory for scientific observation, and a gene pool reservoir. As well, the emotion with which wilderness advocates promoted their position suggests a profound concern about the loss of the wild.

Many people considered fire to be a natural and necessary disturbance for both wilderness and for other old growth areas that are managed for the attributes of a natural, healthy forest ecosystem.

Management, in "natural" areas, might involve *encouraging* succession in restorative directions. As well, judicious utilization might be permitted in such areas, including active rehabilitation; ecologically sensitive logging that maximizes and maintains the health of the forest

"It is important that the definition reflect the fact that we are dealing here with dynamic systems that change over time. Unfortunately, we don't have a lot of really good, long term information on how these systems work."

Participant, Sectoral Workshop "There are virtually no natural wilderness areas left in the world today. Canada has the ability and option to set aside special areas and allow them to develop without human intervention."

Letter

ecosystem and removes some timber before it is beyond commercial usefulness; and more intensive recreation such as hunting, fishing and recreation with vehicular access.

A number of participants expressed an interest in restoring the historic tree species balance. One forester argued that the restoration of some forests to a species balance more reflective of the forest prior to European settlement is the only practical way to ensure a habitat for all native wildlife, from moose to mould:

"We probably have named only half the insects that we have in Ontario, so how could we ever know and plan for all wildlife habitat requirements? So, out of our ignorance, if we want to manage habitat for all these species, the best approach is to try to recreate as closely as possible the natural landscape. That is the landscape these species evolved in. If we continue to provide it, all our native species will probably continue to exist."

A Definition. A definition of old growth is necessary if policy is to be developed for old growth forests. We must know to what forests the policy applies. In light of the summary above, and the entire record of public consultation, it would appear that there will be widespread acceptance of an ecosystem-based definition, if it is accompanied by some index or classification system that goes beyond age and disturbance as identifiers of old growth. (The classification notion was discussed at length in the Sectoral and Resource Mangers workshops, and that material is presented in Section 2.3.)

## 2.2 Succession, Fire, and Age Classes

After concerns about lack of information, succession dynamics in forest ecosystems was the most frequently raised issue in public consultation. The dominant position on succession dynamics was that old growth red and white pine is generally succeeded by *other* species; and that tomorrow's old growth red and white pine will most often

develop from young pine on *other* sites. In this sense, old growth is "transient" or "migratory" across the landscape.

Many of the people who put forward this perspective on succession questioned whether existing old growth red and white pine forests can be maintained as pine—dominant forests. The majority who spoke on this subject argued that, typically, as red and white pine "falls out" of the system it is replaced by young growth of other species, such as balsam fir. Views on succession were expressed so frequently that a number of these comments have been set aside in Figure 1.

Among those that spoke of succession some people did argue that red and white pine stands do self-replace. A close look at the consultation record reminds us of the complexity of ecology and the variability of forest succession; and it supports the contention that self-replacement does sometimes happen.

Some participants suggested that self-replacement in mature red and white pine forests may have been more common prior to human control of light fires. Several people suggested that such fires naturally occur on average every 30 or 40 years. These fires would clear out the underbrush, but would not damage the pine overstory. Pine seed that fell subsequently would germinate and grow for several years before its light and nutritive requirements were threatened by the overstory. At this point, some participants argued, the young trees may die, but if the overstory is dying of old age, or is blown down, the overstory canopy would open allowing young red and (especially) white pine to become re-established on the site.

The role of fire in forest succession was an ongoing theme. The need for a fresh look at fire control and the use of fire in "prescribed burns" arose in most workshops, and in letters, submissions, and questionnaire responses. One person wrote:

"It will do little to protect large areas and then suppress fire. However, there are certain impacts of fire that may be unacceptable, particularly its unpredictable occurrence, intensity and frequency. Silvicultural prescriptions using timber cutting need to be considered equally with natural disturbance such as fire as a preferred alternative for the purpose of maintaining and enhancing old growth forests even within protected areas such as Quetico Provincial Park."

"We can't preserve old growth because sooner or later it's going to fall down. We can conserve it, we can use it, we can manage it. and manipulate it, maybe, but we can't preserve it. That would be creating a museum and nature doesn't work like that. We have to have something set aside now to get an on-going series of old growth sites."

Participant, Thunder Bay

## Figure 1: Comments on Succession

"Somehow we're going to have to reestablish the red and white pine forests. It's no good just to preserve them. You can't pretend you can keep them the way they are and get away with it." (Pembroke workshop)

Trying to protect a collapsing population as old growth when succession would normally develop it to another association would be wrong." (Letter)

"The reality of the white pine population on the Superior Forest is that it is in a steady state of decline and it is not naturally regenerating itself. Regeneration in these stands is abundant, but it is not white pine regeneration. These sites are mostly regenerating with shade tolerant hardwoods and other conifers. What may be a natural museum today, has the potential to be a silvicultural slum tomorrow." (Letter)

"White and red pine systems if left alone will turn into something else in this area — tolerant hardwoods... They will not stay as red and white pine systems." (Subgroup report, Pembroke workshop)

"It is important to recognize that old growth on any particular site may well be succeeded by a forest community which bears little resemblance to the existing stand." (Submission) "The forest is always changing, always, always changing. And it seems to be really difficult to put a little sign up and say, this is an old growth forest. It's going to become a young growth forest no matter what you do with it." (Participant, Resource Managers workshop)

"Old trees are part of a natural cycle. If our goal is to protect old growth forests, we don't protect the trees, we protect the natural cycle that enables those trees to occur. You can't protect a tree, you can't protect a stand of old trees, you have to protect everything that allows that stand to occur. I think the focus of this should not be on old stands. It should be on protecting the entire ecosystem. including all of the natural components of that ecosystem such as fire that go into maintaining that system which will, in turn, allow old trees to keep happening more than once." (Thunder Bay workshop)

"I live in a 100 year old house in Thunder Bay. It's all built out of white pine, like a lot of old houses in Thunder Bay. Old people say that 70 years ago there was a heck of a lot of white pine around here. What's happened?" (Thunder Bay workshop)

In a lengthy letter to PAC, MNR's Aviation, Flood and Fire Management Branch reinforced this position and went further. In their view, the limited regeneration of pine in the last 100 years is a combination of harvest, regeneration and fire management strategies. They wrote,

"Fire managers and researchers recognize that fire can be used in the management, maintenance, and rehabilitation of pine ecosystems over the long term. Alternatively, continuation of fire exclusion strategies in these forest types will, ultimately, play a hand in the demise of the very forest type that society wishes to perpetuate."

Several people observed that the use of fire is a risky business, and staff from the Fire Program acknowledged this in their submission to the Committee. Their brief called for research by fire and forest ecologists into the role of fire in regenerating and maintaining old growth ecosystems, and continued development of expertise in fire behaviour, impact prediction, and prescribed fire techniques.

Other age classes. In a letter, one person said that the focus on old growth "is similar to looking at one piece of a jig-saw puzzle... People must realize that if we are to have old growth forests in the future, we must have young forests today." This point arose repeatedly and proved to be one of the major themes in the consultation: we must go beyond protecting existing old growth and ensure the health and survival of red and white pine in all age classes.

Participants emphasized that attention to younger age classes involves forestry practices that favour both younger pine now on the land, and regeneration. Some individuals pointed out that white pine is difficult and expensive to regenerate, and that it is only in the last decade that pine regeneration has become an MNR concern. Others spoke and wrote with great distress about recent, recession—induced cutbacks in the pine nursery program.

# 2.3 Toward a Classification System to Identify, Model and Plan for Old Growth

As indicated earlier, a general definition of old growth appears to be acceptable, if it is accompanied by an ecologically-based classifica-

"In fact, progressive fire suppression and prescribed fire strategies may actually be the most cost effective way to meet society's ecological objectives."

Submission, Aviation, Flood and Fire Management Branch, MNR tion system that can:

- · take into account a variety of factors;
- · allow long term planning; and
- be useful and straightforward in field application.

This notion first emerged in the consultations at the Sectoral work—shop, framed in terms of an "index". As put forward, such an index would be based on age and the degree of freedom from human disturbance. But as the idea was explored, there was agreement that such an index should be "weighted" for other factors, such as region (noting that the definition of "old" or "disturbed" may differ from region to region), scarcity of ecotype, and the presence of endangered species.

The idea, as another participant put it, is to "strive toward some sort of definition that is measurable and that takes into account a lot of characteristics, that adds up to some sort of total index value that would be comparable from one site to another." In this respect, it might be comparable to the wetlands classification system.

However, serious concerns were raised about delays while such a system is developed, and the possibility that it will be too complex to implement. In response, several participants argued that with current knowledge of landscape functions (eg. succession and wildlife habitat), and the existing Forest Resource Inventory (FRI), the process of identifying particularly valuable sites can begin at once.

At the Resource Managers workshop, a concept related to the index notion was discussed at some length. This second concept was initially put forward as a computer-based age class model:

"An alternative (to defining old growth) might be to try to model what we think is a desirable age class structure, rather than to say this stand is old and this stand is not. To look at the forest as a whole and see how much of the different age classes we have. There are very simple modelling tools available right now to allow you to do that... So again, I don't know exactly how to define old growth, but with this approach we can go ahead and get quantified information and start to actually make the definition work in an operational sense."

After considerable discussion, a forest modelling concept emerged that would begin with species composition, age class data, and spatial

"It seems to me that there is so little left of some forest types that even if they scored low on age and disturbance we may want to preserve them."

Participant, Sectoral workshop distribution. Data on other factors could then be added, including the degree of freedom from human disturbance; the size and health of the stand or forest ecosystem; site region and site conditions; unique or differentiating ecosystem features; the existence of endangered species on the site; proximity to settlement; and aboriginal archaeological features.

Participants at the Resource Managers workshop argued that a modelling tool like this, supported by detailed data, should enable managers to plan for the continuing presence of old growth red and white pine as a transient, or migratory, component in the landscape.

Is this approach to forest management realistic? Will it yield results that can be implemented in the short term? Discussion at the Resource Managers workshop indicates that work on such models is now underway in Ontario. A number of people argued, as well, that a good start on the necessary database can be found in the existing Forest Resource Inventory, complemented by field data. Further data, it was pointed out, is currently coming available from several sources, including FRI updates, satellite imagery, MNR's Forest Fragmentation and Biodiversity Project, and forest ecosystem research.

While critics pointed out that the FRI has limited specificity for trees over 120 years old, and that it does not identify young stands well, others argued that it was never intended for use at the local level without input by local resource managers.

"Perhaps assigning a value that indicates how close the stand is to the primary, natural forest should be part of the definition of old growth."

Participant, Sectoral workshop

# 3. Perspectives on Protection

#### 3.1 A Matter of Values

The Policy Advisory Committee decided early on that to recommend a conservation strategy for old growth forest ecosystems it needed to know not only *what* the public was saying on the matter, but *why*. For this reason, its Discussion Paper asked, What is it that people *value* about old growth?

Reviewing the public consultation record, it is apparent that participants hold four types of values:

- ecological values;
- aesthetic, emotional, philosophic and spiritual values;
- · wilderness and natural heritage values; and
- economic values.

It does not seem possible to separate or rank these. All are very important to some of those involved in the consultation, and most are important to everyone to one degree or another. The primacy of ecological values — the notion that without healthy ecosystems everything is in jeopardy — was generally accepted. But so was concern about the long term economic health of northern communities. (Economic disagreements were focussed largely on the short term implications of various possible strategies.) The need for wilderness was accepted for a variety of values—based reasons, but with obvious differences regarding how much forest land should be reserved as wilderness. And while many people spoke and wrote about aesthetic, emotional, philosophical and spiritual values, when it came to policy development these were de—emphasized somewhat, and the need to find a balance between protection and economic uses of the forest arose more frequently.

Those consulted were clear that their concerns will not be met with a simple strategy that applies the same formula to all parts of Ontario. A forest industry association brief to the Committee put it this way:

"We're talking about moral decisions. How much do we protect? What do we protect? Science will give you more facts, and you'll understand the ecosystem better, but you still have to make the moral decision."

Participant, Pembroke workshop "The relative importance of the values associated with old growth forests will vary from region to region — and even locally — depending on the specific ecological, social, cultural and economic circum—stances. In some areas, timber production may be the most important value. In others, recreation will be primary. In others still, biodiversity and specialist plants and animals may be the most important. Some of the factors which impact on this evaluation are the quantity of old growth forests already set aside, the degree of recreational use currently demanded, and the dependency of local communities on consumptive uses of the forest."

With that caution, it must be said, nevertheless, that protection was seen by most participants in the consultation as the bottom line. So little old growth pine is left, and younger pine is so weakly represented on the landscape relative to historical levels, that the question of protection and a sense of urgency dominated public consultations. Some people felt the situation to be so desperate that there should be no more cutting of any old growth red and white pine, starting immediately.

However, while the majority of workshop participants, questionnaire respondents and writers supported one or another level of protection for the remaining old growth, some of these same people, and others, felt just as strongly that "interim" protection measures could be truly dangerous. In this view, interim measures tend to last for years. If this proved to be the case, by the time decisions were made the pine-based forest industry could be long dead.

It was evident from the public consultation that these decisions will not be easy and that they will be based to a substantial degree on the public will. A scientist in the Pembroke workshop, for example, argued that old growth policies are not as much decisions based on science, as choices based on public values. With this in mind, the balance of this chapter explores the rationale behind the various perspectives on protection that emerged during the consultation process.

#### 3.2 Inherent Arguments for Protection

In this view, old growth is valuable for its own, unique qualities, such as age, rarity, and historic significance. A person at the Pembroke

"We must be careful not to gamble away the assets of future generations. I think we've done a lot of damage. I fear that all we're going to have in the future are monoculture tree farms."

Participant, Sudbury workshop

" want my children to know what old trees and old forests are supposed to look like."

Comment, Questionnaire workshop and another at the Guelph workshop likened old pine to the diminutive, seven hundred year old Eastern white cedar found on the Niagara Escarpment. They argued that natural wonders like those cedars and very old pine are valued by people the planet over. Another person wrote, "Most cultures have deep respect for the old, and not necessarily because everything old has functional value." Others emphasized the value of these old stands as "living history", representative of "the way things were prior to modern times when natural processes were left undisturbed". Many people stated specifically that they wanted to ensure that old growth pine will be on the landscape for future generations.

Others simply argued for the aesthetics of old trees and old forests. Said one person, "I want some old growth preserved so my kids can see what big trees look like". Another commented in a questionnaire response that old pines warrant protection for their beauty alone.

A number of people argued for what one person called an "earth position", the notion that protecting old growth ecosystems is no less than respecting the fundamental rights of the planet: "How can we justify taking it all?" Others equated old growth with wilderness, and spoke of the inherent importance of wilderness. One person wrote, "Unmanaged nature embodies values which lie beyond human comprehension." Another, at the Sectoral workshop, argued that "the few, rare remaining old growth ecosystems have a value in and of themselves because they exist independent of human use and management".

3.3 Ecological Arguments for Protection

The ecological perspective holds that ecosystem protection is the paramount value, in that without ecosystem health we will lose all the benefits that accrue from old growth forests. For some people, this implies severe restrictions: "The policy on old growth forests should primarily address the ecological balance of the forest and should specifically exclude multiple use. The only uses permitted should be those that are compatible with the goal of protecting the ecological needs of the forest."

"If global
warming trends
occur, it would
be desirable to
have pine from
as many
populations as
possible to
ensure
continued
viability."

Comment, questionnaire

20 "What We Heard"

While some people questioned whether old growth forests contain greater species diversity than other forests, concerns were raised about the survival of "specialist" plants and animals that live only in such forests, many of which may not be identified as yet. As well, concerns were raised about maintaining the genetic diversity of red and white pine. One person suggested that red and white pine are already at the edge of their range in north central Ontario, and that given unpredictable changes in temperature and rainfall, if we want pine in our future, it is vital that we not lose adaptability through loss of genetic diversity.

A number of people, especially in the questionnaire, emphasized the ecological value of old growth forests, continentally and globally.

Others spoke of limits and the potential for ecosystem collapse — and questioned whether we've already passed the point of no return. A birder spoke about this at the Sectoral workshop:

"There is a limit to how much you can take out of a system before it fails. In the birding community we're seeing systems fail left, right and centre. The biggest single reason for the loss of species is not the storms, the hunters or pesticides, it's loss of habitat."

Still others spoke of the importance of old growth forests for research. One noted that "our stands are a historical database recording the results of past intervention, non-management and fire suppression". A number of people stressed the scientific importance of setting areas aside for observation where natural processes are allowed to unfold without disturbance. A scientist wrote that research in old growth forests may be extremely valuable for forestry in general:

"There are often cries for more reliable knowledge about old growth and complaints in science circles that we just don't know enough about ecological processes. This is compounded by the realization that one cannot apply knowledge from one ecosystem to another... To obtain reliable knowledge with which to make effective management and restoration decisions, tests must be performed based on sound biological hypotheses and with suitable controls. The suitable controls are in old growth areas. Without them we do not truly know what effect our forestry practices are having on the ecosystem."

"Old growth forests are vital as base-line controls in ecological research."

## 3.4 Pragmatic Arguments for Protection

Perhaps the largest body of opinion might be best described as pragmatic. Many people said, essentially, stop cutting until we know more about these ecosystems. As one person put it, "We have to preserve what is left until we know what we are doing."

While some felt that protection policies must be based on a detailed inventory, complete with age class and ecological data, a great many people argued that we should stop cutting now, that time is running out. One person wrote, "This is the only chance we get." A subgroup at the Thunder Bay workshop recorded a similar conclusion: "The situation is seen to be so urgent that it is not possible to wait for a complete inventory."

Several people observed that we should protect the old growth that we have because it is difficult to recreate natural assets that are lost. A person at the Sudbury workshop carried this idea further, pointing out that old growth forests are not renewable resources in the context of a human lifespan: "Once they're gone, no one alive will ever see old growth on that site again."

## 3.5 Looking Beyond Old Growth

As indicated in the previous chapter, a great many people made it clear that management for old growth red and white pine over the long term involves the protection of pine *in all age classes*. Several people spoke with concern about the succession of pine, without fire, to (as one put it) "silvicultural slums". Concerns were also raised about cutbacks in the pine planting program, insufficient silvicultural management of young forests, and adequate restoration of degraded forest ecosystems. One person suggested a "trees for grandchildren" program.

Moreover, there were people at nearly every workshop who felt that most of the values we hold for old growth forests are not unique, that they apply to forests in all stages of development. This suggests that a fundamental change is underway in the public perception of forests.

"You only have to look at the problems of getting back a natural asset that has been lost to realise that when you have an asset you hang on to it."

Participant, Guelph workshop

"...This is the only chance we get."

How shifting public values are reflected in public policy is another matter. In the formation of public policy, "balance" is usually a major concern, and the consultation record indicates that old growth policy is no exception. Many people expect "a balance of interests" reflected in "balanced" policy. This message was heard loudest from northerners concerned about the imposition of southern, urban values. That concern is revisited in the following two chapters.

But it must be said that the most prominent demand among Northerners and Southerners alike was not for balance, but for *redressing* an imbalance that has gone on since the settlers arrived in Ontario: the dominance of short term economic agendas over all else. Participants in the public consultation are saying that economic and regional concerns must be addressed, but within a larger, long term vision of a forest ecosystem returning to health.

#### 3.6 The Question of Scale

How large an area must be protected and maintained to protect red and white pine ecosystems? This question seemed to capture more attention as the consultation process unfolded, culminating in a discussion of "landscape management" at the Resource Managers workshop.

A number of concerns emerged repeatedly, in most workshops and in many letters, submissions and questionnaire responses:

- If we are to protect old growth *ecosystems*, and not just old trees, old growth areas must be large enough to support ecosystem *function*. A small stand of old trees is indeed representative of ecosystem *structure*. But in a small stand the complex tapestry of inter-species relationships that make up the actual functioning of an old growth ecosystem will be absent.
- Even if large enough to preserve ecosystem function, isolated old growth reserves will suffer from problems related to fragmentation. If the forest is fragmented, corridors are lost for the migration of animals and other species that depend on old growth system functions. As one person put it, "Fragmentation of the landscape may have large implications for the long term viability of certain forest communities and wildlife populations." Many people spoke with concern about the need for "contiguous" old growth areas. A participant at the

" slands of old growth will be of little conservation value due to the high probability of genetic isolation and localized extinction. If one wishes to conserve old growth communities for perpetuity, their linkage to the rest of the landscape is essential."

Sudbury workshop pointed out that old growth forests must be "in the same general area" as forests moving into the old growth category so that species dependent on old growth forests can migrate as the old forest is replaced by a younger one. Others spoke of the need for "corridors" between old growth areas for species migration, and of the need for "buffer zones" around old growth areas, arguing, as one put it, that "what happens outside the stand is very important to what happens inside the stand".

• In many cases, younger red and white pine is in a mixed stand. A stand that is 30% red and white pine could be managed for pine, but should that stand be protected as part of an old growth pine area?

Comments such as these restate the notion that a protection strategy must operate at the landscape level and over the very long term. The landscape perspective on protection, then, argues that we manage an entire landscape so that red and white pine (and other old growth) ecosystems will always be present. The scope of this vision, in both space and time, far exceeds the human dimension. This notion came out most clearly in the brief from the Aviation, Flood and Fire Management Branch: "For fire managers, the maintenance of ecosystems over a large area is a goal that is more achievable over the long term, say 500 years."

"A strategy that hopes to keep old growth forests in the landscape must place itself within the context of management of the whole landscape, and not become focused solely on the aging stands that are now in the forest."

## 4. Economic Concerns

#### 4.1 The Reality of Economic Hardship

Concerns about the economic impact of protecting more pine came mostly from those directly affected: from workers and managers who depend on the forest industry for employment. The anxiety of those who spoke or wrote is apparent:

"If jobs disappear because of this (removing further pine from production), I don't think we've gained anything. We may not be leaving anything to our children but they won't have anything now either." (Pembroke workshop)

"You can have all the solitude, spirituality and biodiversity you like, but it won't be much of a pleasure if people in this province can't afford to put bread and butter on their tables." (Questionnaire)

"Spiritual, recreational, symbolic and intrinsic forest values rank fairly low on the priority list of many thousands of Canadians living in poverty and struggling for their own existence. Commissions such as this run the danger of identifying and emphasizing very middle class values." (Submission)

"What do you intend to do with all the people and sawmills if you force us to stop cutting?" (Thunder Bay workshop)

Forest industry managers spoke frequently of the amount of timber already reserved in parks and in Areas of Natural and Scientific Interest (ANSIs), and of harvest deferments in Areas of Concern. One person said, "We lost about twenty years of wood with the creation of Quetico Provincial Park, and I think that's enough." Another suggested that some fifteen percent of the area available for harvest has been removed from production by deferrals in Areas of Concern.

A mill operator wrote, "Protection of all old growth could have a significant negative economic impact as a number of small sawmills rely almost exclusively on these species." He and other operators emphasized that most mills in their areas are small and independent, and are located in small communities with limited opportunities for other

"To me, old growth means my job. I'm wondering if your group has any plans for people it would put out of work, if you keep taking forests just for something to look at. In these hard economic times I don't think it's the right time to do that."

Participant, Pembroke workshop "Many people feel that with our slow-movina bureaucracy, the interim measure might remain in effect for three to five years! Due to this factor. I can no longer support a moratorium as the best interim option. The financial hardship on the logging community while an overall Old Growth Strategy is agreed upon will be too great.".

Letter

employment. One referred to government protection policies as "induced economic hardship" and suggested that affected mills and their communities "deserve some consideration". Another spoke with great concern about the "ripple effect" that mill closures would have in the North.

As mentioned earlier, another concern is about the long term effect of "interim" policies. One mill operator in the Temagami area observed that pine stands had been "frozen" for nearly seven years in his area, and he asked, "How many more years can an industry wait for the public to make a decision?" In his view, to develop an entirely new classification system and do an inventory on that basis would be irresponsible.

At the Resource Managers workshop there was considerable discussion about the bureaucratic reality of "interim" measures. Many people argued that such measures tend to stay in place much longer than the intended one year. With that on the table, some people backed off from recommending as immediate and as high a level of protection as they would have prior to that discussion.

A brief from a forest industry association took this position as well:
"The notion that interim protectionist strategies will keep production options open is mistaken. The economic hardship that forest industries and communities would experience through the withdrawal of old growth stands from harvest is not an *interim* effect... Companies cannot simply close down for a year due to lack of timber, and expect their bankers, customers and employees to return upon the completion of a final old growth strategy which allows harvesting. This type of strategy will eliminate options for conserving old growth white and red pine through management in these areas."

#### 4.2 Are Closures Inevitable?

In contrast, in some letters and questionnaires and at nearly every workshop there were people who asked, essentially, "If mill closures are inevitable why not stop now while the trees are still standing? Three views on this are as follows:

"If cutting continues, the supply would only last for a few years. The forest industry would soon be out of old growth and the old growth forests would be gone. Are the short term economic benefits for industry an acceptable reason for allowing ecosystems of such ecological and social importance to be lost?" (Questionnaire)

"I just don't understand what a small town or community that depends upon access to an old growth stand for its survival is going to do three years from now when they finish cutting down that stand. Part of our response should be a promotion of alternatives. Either they have alternative options or they're not going to survive anyway, they're a non-sustainable community. If you wait and let them cut down a stand for economic reasons, three or four years later the people involved are older and less retrainable." (Guelph workshop)

"Economic hardship for sawmills dependent on pine seems inevitable regardless of whether or not all old growth is protected since the pine resource has been depleted to extremely low levels because of inadequate management for regeneration." (Questionnaire)

This position shocked one person into writing the following in a letter to PAC:

"I was very distressed (at the workshop) to see the degree of unrealistic desire to forge ahead toward a complete moratorium on cutting and let the northern communities fend for themselves to find an alternate economic base. These communities were established and remain based on the forestry industry, and have been led astray by corporate policies. I thought we had left social Darwinism behind decades ago."

Others spoke of fairness, compensation, retraining and developing alternative sources of employment. Some people emphasized tourism potential, particularly of wilderness ("True wilderness is fast becoming one of the hottest commodities on this planet."), and one pointed out that "it's really hard to get people up to look at stumps". But others doubted whether tourism or other alternatives could ever replace logging as a major contributor to employment and provincial wealth.

A commonly expressed sentiment was a call for "fairness", however that might be achieved. A Guelph workshop participant said, "The ethics of this issue are not just the biological ethics, but also the social ethics." A Sudbury workshop participant contended that industries

"Job losses in the timber industry are inevitable and destroying the remaining old growth forests merely slows down the inevitable."

Questionnaire

" was very distressed... I thought we had left social Darwinism behind decades ago."

"You've got to provide a safety valve to address the fairness issue, the equity issue. You cannot approach this purely on a scientific or ecological basis. The issue involves not just biological ethics, but also the social ethics."

Participant, Guelph workshop

"We're talking about the economic existence of nearly every village and town in northern Ontario."

Participant, Sudbury workshop dependent on red and white pine should be given financial compensation if denied adequate fibre. A person at the Thunder Bay workshop argued, "If there are commitments in place and there is a change in policy, I think there should be a little bit of fairness in how it's handled."

Another person in Thunder Bay suggested that some form of economic "pillow" be provided if old growth areas are removed from previously operational, managed land, and that all Ontarians should share the financial burden: "If Ontarians truly want these areas put aside, they should be willing to pay "new" money from some sort of tax, such as an old growth forest tax." Also in Thunder Bay one person questioned,

"Are you going to be charging people of science to use those areas for study? Are you going to be charging people that want to go and walk through that aesthetically beautiful place? Are you going to not charge them, and let the other people lose everything entirely?"

#### 4.3 The Need for Information

At every workshop, many people were hesitant to commit to an actual strategy for conservation without more information, both on the pine resource, and on the social and economic impacts of various levels of protection. Foresters and industry managers emphasized repeatedly that a pine inventory is necessary to determine whether the *existing* level of protection is adequate.

Many people wanted detailed economic and social projections that show how specific mills and communities would be affected by different levels of protection. As one person put it, "The amount of land and the number of people involved affects how we feel about it." Others argued that protection will generate unemployment, social dislocation and human suffering; and that the financial cost of those impacts that will be carried by all Ontario taxpayers.

#### 4.4 The Question of Balance, Revisited

In Section 3.5 the argument was made that the imbalance toward short term economic gain must now be rectified. However, comments on economic considerations suggests that it may be possible to do this without drastic damage to the red and white pine industry. The question is whether a pine inventory, detailed planning and more ecological forestry can allow us to retain a pine industry, while retaining an adequate amount of old growth, and indeed, while increasing the amount of red and white pine in all age classes.

A private woodlot owner, equally drawn by both aesthetics and economics, drew these conclusions in a letter:

"We are in the lumber business and our living depends on the supply of red and white pine, but I also want my children to be able to enjoy the natural beauty of these magnificent trees and have continuous supply of these species to market...We need to work together to find a solution that makes economic and environmental sense."

At the Sectoral workshop, another person said,

"I'd like to say, as a forest worker, that one of our obvious values is fibre extraction, but it's not our only value. We're also conservationists at heart because our livelihood depends on the forests."

In the workshops and in letters and questionnaires, some people argued that a balanced policy should include "active management for old growth". Active management, they contended, could enable us to meet ecological, esthetic and economic objectives. It would involve cutting some old growth red and white pine while it remains commercially valuable, and leaving some trees for seed, shade and habitat. With intensive management, perhaps including prescribed burns and plantings, pine forests could be managed for pine succession. If care is taken in mixed stands, the pine component could be increased. Some people argued, as well, that with careful, ecologically sensitive practices that increase the amount of pine on the landscape, some harvesting might even be desirable in some areas now protected.

"What are the real costs of protection — in unemployment, social dislocation and human suffering?"

Questionnaire

"Beyond a certain point "old growth" trees have no commercial value. If the intent is to allow these trees to grow older, there is no coming back. The economic value as a timber resource is gone."

# 5. Regional Concerns

region to region across Ontario? The consultation record indicates that there *are* important differences, but it appears that the differences are less significant than the similarities.

The most important regional differences appeared to be over eco—

Are there significant differences in perception and expectation from

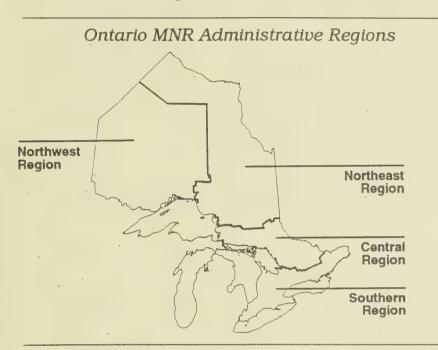
The most important regional differences appeared to be over economic issues. On a number of occasions, and in a number of questionnaires, concerns were raised that the public consultation and subsequent policy was in danger of being dominated by southern values, urban interests, and by people with no connection to, or reliance on, the forest industry. One person wrote, "In developing old growth policies for Ontario, caution must be exercised to ensure that policies developed to address the concerns of Southern Ontario do not adversely affect the environment or the economy of the North." Others were more blunt. For example, "To tie up all stands of red and white pine... would be a narrow unrealistic move on behalf of southern Ontario urbanites who close their minds to the economic realities of the 'other' Ontario, the North."

While it is important that policy makers are aware of north/south and rural/urban tensions, it is even more important to emphasize that every perspective was put forward in every region. Ecological and pragmatic arguments for old growth protection, concerns about other age classes, and concerns about scale, were prevalent in the north and south. Concerns about the economic survival of northern Ontario were voiced everywhere.

In the questionnaire responses, the most significant difference of opinion, regionally, was between those who favoured protecting all old growth red and white pine (66% in the south, vs. 25% in the central, northwest and northwest regions). Among those favouring the next level of protection (which would include some management of old growth), regional differences were not significant (53% vs. 44%). Respondents in the northwest did emphasize the management of old growth, as opposed to "hands-off" protection, and southern respondents did tend toward higher levels of protection. However, a pro-

"We're not going to meet every value on every hectare, but we should try to meet every value on a provincial basis, and then balance that throughout the province. In some places the right solution will be protection. In others it will be timber production."

Participant, Sectoral Workshop found concern for the health of forest ecosystems was apparent everywhere. So perhaps it is no surprise that the following regional reports are not strongly differentiated. (Note that the questionnaire responses were coded regionally with boundaries very similar to those of the MNR Administrative Regions.)



Central Region. At the Pembroke workshop great concern was expressed by several people about a small old growth stand on the Ottawa River within the Arnprior town limits. Reportedly, it contains some of the largest white pine in Ontario, as well as significant old growth hardwoods. The site is regularly enjoyed by townspeople of all ages, including residents of a nearby nursing home. Privately owned, the stand of less than fifty hectares is expected to be cut to make way for a subdivision development. Neither a citizens group nor the town has been able to obtain any compromise.

The site raises the difficult issue of public control on private woodlots. A number of people in different workshops expressed great concern about this possibility. But others argued that there are situations, in or near towns and cities, where there should be some way to set aside land for cultural, heritage or esthetic reasons. The people concerned about the Arnprior situation did point out, however, that this falls out-

"We feel we're very fortunate to have a forest like that right within the town limits. Once its gone, it's gone."

would be absolutely appalled if Stanley Park in Vancouver was developed. Of course, we're small peanuts compared to that, but still, we should attempt to preserve it if we can."

Participants, Pembroke workshop "Special training in red and white pine management may be needed for resource managers, and present funding for basic silviculture is inadequate."

Northwest Region subgroup report, Resource Managers workshop side MNR responsibility, the Ministry to which PAC reports. One of those people commented,

"The basic problem with the management of private land for any characteristics, old growth or something else, is that zoning strictly falls under the Ministry of Municipal Affairs. And that Ministry appears disinterested and uniformed about forest ecosystems."

Participants at both the Guelph and Sudbury workshops expressed concern about old growth pine stands in the Temagami area. These stands are on crown land under MNR jurisdiction. The citizens who spoke were not convinced that MNR will adequately constrain logging in these areas. One 500 acre area in particular was identified, again, a site close to a population centre: "People can walk to it from downtown Temagami in twenty minutes. A short walk and you can see trees it takes three people to put their hands around." A residents group and local business interests would like the area protected for recreation, tourism, trapping, hunting and fishing.

Participants in a Central Region subgroup at the Resource Managers workshop reported the following:

- Prescribed burns to promote red and white pine regeneration have been tried in the Pembroke district and results look promising.
- In the Sault Ste. Marie district, the General Tree Marking Guidelines for Tolerant Hardwoods provide for the retention of scattered, healthy conifers and scattered individuals of other hardwood species. Individual species are not to be removed, so as to retain biodiversity within stands.
- In the Wawa district, where white pine occurs it is harvested according to the seed tree method; if there is not enough white pine for seed tree spacing, 50% of the pine is left standing.

Northwest Region. The private land/cultural heritage issue arose in this Region as well. Several stands of old growth yellow birch near Thunder Bay were identified as needing protection. The following points were made in the Northwest Region subgroup at the Resource Managers workshop:

• Red and white pine are at the northern edge of their range here.

There is so little pine that it frequently occurs as individual trees, rather than stands or forests. These pines may not show up on any existing inventory, so protection is both important and difficult. The

Sioux Lookout and Red Lake districts were mentioned specifically in this regard.

- The goal in this Region should be to protect what red and white pine is left, increase the pine component, and restore red and white pine in areas where it has disappeared. Some form of disturbance will be necessary, and it may not be feasible to increase the red and white pine component without the judicious use of herbicides.
- Special training in red and white pine management may be needed for resource managers, and funding for silviculture is inadequate.

**Northeast Region.** The following points were recorded by the Northeast Region subgroup at the Resource Managers workshop:

- In certain areas (eg. the Mississauga fire area) white pine is regenerating.
- MNR staff in Wawa, Gogama and Chapleau expressed a strong interest in white pine renewal.
- Most of the pine in the Region was removed 30–40 years ago. Today most red and white pine occurs as a minor component in mixed stands. Existing pine stands are very old (>120 years).
- Past efforts to regenerate white pine in the Region were not successful but present silvicultural techniques are promising. However, there is presently a lack of will, funds, and legislation to do an adequate job.

**Southern Region.** Concerns about forest management on private woodlots were expressed by a farmer in southwestern Ontario. He emphasized the ongoing destruction of "old growth" fence rows: "This has and still is destroying pathways that many wildlife species rely on for survival, protection and passage from one woodlot to another."

Participants in the Southern Region subgroup at the Resource Managers workshop reported the following:

- White pine is almost gone in southern Ontario, but significant stands of old growth maple remain. Old growth stands are frequently isolated private woodlots.
- Existing forests are frequently used for campgrounds or upscale residential development. In the latter case, the natural undergrowth is generally removed.
- The oldest red and white pine stands in the south tend to be younger than elsewhere, and a protection strategy in this Region for old growth should reflect this.

"The major reason that the scattered woodlots remain is because the profit in the farming sector doesn't warrant the expense of clearing the forest. But as the profits per acre increase so does the forest destruction. Always has. always will."

Letter

# 6. Strategic Implications

# 6.1 Strategic Questions and Critical Information

Reviewing the record of public consultation on old growth red and white pine, it is apparent that a number of fundamental, strategic questions have been clarified, but not answered. Specifically,

- Where is the old growth red and white pine?
- · How much red and white pine should be old growth?
- How much of the forest should be red and white pine?
- · How much wilderness do we want or need?
- · How much managed but natural forest do we want or need?
- To what degree do we want to return the forest to its composition prior to the arrival of European settlers?
- · Over what timeframe should we plan and manage?
- What are the ecological, social and economic implications of different conservation strategies?
- If our planning timeframe far exceeds a human lifespan, as appears necessary to manage the landscape for old growth pine, how do we deal with this in public policy and public finance?
- Can existing or alternative forestry practices be used, or new practices developed, to ensure the perpetuation of red and white pine ecosystems and promote the return of our forests to a more natural state, while maintaining forestry as an economically viable industry and an important generator of provincial wealth?

Consultation participants frequently felt that without inventory data and information on the implications of different strategies they were unable to make statements on any of these questions but the last two.

The lack of such data was frustrating to workshop participants and there were calls for an inventory which would identify:

- the amount and location of red and white pine in all age classes;
- the amount of pine, by age class, that is presently protected;
- the size, location and spatial relationship of existing pine forests and

"Surveyors' notes from my district in the Central Region suggest about 40% of the district was dominated by white pine stands of various ages at the turn of the century. Some of those districts now have four or five percent. We know we have a long way to go to get back to what we had."

Participant, Resource Managers workshop old growth stands;

- the level of pine representation in mixed stands, by location;
- pine representation, by region, prior to settlement by Europeans;
- present pine harvest levels and locations;
- communities that are particularly dependent on pine harvest.

A number of workshop participants suggested that if inventory data were used in a pine ecosystem model (as discussed in Section 2.3) the impact of various factors and strategies could be predicted over time and space. In this way, information technology could assist with planning for the desired species composition and age class mix over the very long term. Existing Forest Resource Inventory (FRI) data, combined with the field knowledge of resource managers, was considered useful as initial input data. However, participants emphasized that additional inputs will be needed for effective planning, including scientific insights and data. Indeed, it was frequently noted that there is much to learn about the ecology of Ontario old growth forests, and research was widely recommended.

Participants pointed out that natural science information would be particularly useful in developing strategies to maintain diversity, and in developing indicators of ecosystem health.

Strategies to maintain diversity would protect diversity of ecosystem types, of tree species, of the gene pool within tree species, and of associated flora and fauna.

Indicators of ecosystem health, including thresholds beyond which ecosystem health is threatened, would provide estimates of the impact of specific stressors, such as various forms of human use (including non-intervention and new approaches to forest management), pollution, and climate change.

A number of participants spoke and wrote in detail about the need for biological indicators to identify and monitor old growth red and white pine ecosystems. The trees themselves are obvious candidates, but several participants distinguished between *structure* and *function*. Old growth structure (size of trees, the nature of the canopy, etc.) may be simplistic but it is easy to monitor. Old growth function — the func-

..."But why should we go to something called a natural distribution as opposed to other ones? What we need to know as forest managers is exactly what the objective of this whole exercise is. If the objective is to create a presettler forest. that's one thing. If it's to create a commerical forest, that may imply something else."

Participants, Resource Managers workshop

"Science must be used to evaluate the impact of selected strategies because, put simply, the selected strategy might cause the long term. destruction of old growth forests regardless of our good intentions."

Letter

tional processes of an old growth ecosystem — is a more direct measure of system health, but is likely too difficult and too expensive for using in routine management. Several people suggested that bird and animal species be used as indicators, emphasizing that good indicators would be fairly abundant and relatively easy to observe. Specific suggestions were the pine martin in the Boreal Forest Region and the pileated woodpecker in the Great Lakes Forest Region. A scientist suggested that we should also search for old growth ecosystem indicators among mammals, amphibians and invertebrates.

# 6.2 Views on a Conservation Strategy

The mandate of the Policy Advisory Committee on Old Growth Forest Policy in its first year is to recommend an interim conservation strategy for red and white pine. One intent of the interim strategy is to ensure that options for maintaining old growth red and white pine in the landscape are left open while PAC develops the overall strategy recommendations for all types of old growth forest ecosystems.

As described in Chapter 2, the Committee presented a range of strategy options to help focus public discussion. At one end of the spectrum presented was "full protection" of all old growth red and white pine stands. At the other was intensive utilization, including continued logging under existing regulations. Between these extremes is a continuum that moves from a strategy with a high degree of old growth protection and minimal human intervention, logging or other high impact uses; to a strategy in which some old growth would be retained and managed for old growth characteristics while most would continue to be cut under the existing "oldest first" rationale.

Workshop participants and questionnaire respondents were asked to state which option they favoured. While there was some regional variation (notably, a higher level of protection at the Guelph workshop and among questionnaire respondents from southern Ontario), the variation was not significant. On a five point scale, with full protection "1" and present practice "5", a very large majority of all who indicated a choice selected options in the 1–3 range.

However, this may not fully reflect the public will. Most people said, essentially, that the wrong question had been asked, that the focus should not be limited to old growth. Rather, they felt that our attention should be on the protection of all age classes of red and white pine so that we ensure the presence of old growth far into the future.

# 6.3 Reorienting Forestry

As discussed earlier, it was thought by some consultation participants that commercial forestry could act in the *service* of ecology. A "reoriented" commercial forest industry would be economically viable, while restoring and preserving the health of forest ecosystems, ensuring the full diversity of wildlife habitats, increasing the pine component, and increasing the old growth component. There would be tradeoffs, but these may be short term only, given that some of the forestry practices used in recent decades are no longer sustainable.

Many people argued that fire suppression has left us with forests that *require* management, and that fire may prove to be a cost effective form of management. But others noted that the use of fire is in its infancy and likely will always be fraught with uncertainty:

"Managers will find it very difficult, if not impossible, to allow fire to play a random, natural role on a small area. Values and protection requirements on adjacent land bases will, in many cases, dominate decisions related to fire management on old growth lands. Fire strategies in old growth areas may also have large impacts on those adjacent lands, including risk of fire and smoke." (Letter)

Can fire's role in regeneration be replicated? More broadly, how can active management meet our ecological objectives?

A number of consultation participants referred to "New Forestry" in this regard. New Forestry has been developed on the west coast, and is largely based on over fifteen years of research on 350 to 750 year old Douglas Fir forests in Oregon. The basic principle underlying New Forestry seems to be transferable: in New Forestry, sustaining biological diversity and maintaining long-term ecosystem health, on a land-scape basis, is the primary objective of forest management, with timber production viewed as a by-product of this primary objective.

" If we are successful in preserving 200 year old stands for another 100 vears then we have achieved no victory and made no contribution to the greater goal of forest conservation. In our view. conservation takes a longer perspective than preservation. It is unrealistic to believe that anything can be preserved forever. Our forests can. however, be conserved if the focus is on every stage in the cycle."

Submission

On the other hand, while this philosophy was lauded, participants frequently pointed out how different our forests are, suggesting that specific techniques may not be transferable. Perhaps for that reason, there was little discussion of New Forestry beyond its basic approach.

Participants did identify several existing forest management practices now in use in Ontario that appear consistent with long term management for red and white pine, and that *could* be used in an ecosystem and habitat oriented strategy. The methods mentioned are selection cutting (removing some trees individually or in small groups), seed tree cutting (a clearcut with trees left in the cutover area to provide seed for regeneration), and shelterwood cutting (removing some mature trees and leaving the others to provide shelter for the regeneration of species requiring shade).

A private woodlot owner at the Pembroke workshop described how his family has used selection cutting to nurture and draw economic sustenance from a forest tract for four generations:

"My grandfather bought a farm in 1905. It had reverted back to bush because the settlers found they couldn't farm it. We have gone through with the horses and tractor every 15 or 20 years, like you would tend a garden. Each generation has taken out quite a bit of wood, mostly red and white pine and maple. You go through and pick out the diseased ones, the ones that are too close, and leave the ones that will make good future trees, but not with a skidder. You tear up the ground and plant new seeds and watch it regenerate. You have to work your forest if you want to reap the benefits of it. There's far more wood now than there was then."

A number of foresters at the workshops emphasized that the seed tree and shelterwood methods are presently in commercial use for pine harvest and regeneration.

# 6.4 Institutional Challenges

Old Growth Policy and Private Lands. For the most part, consultation participants focused on old growth policy for crown lands. However, a few people advocated that government have some control over old growth pine on private lands, particularly on sites near towns and

"The objective must be to adopt forestry practices which make sustainable forestry economically viable."

**Ouestionnaire** response

cities. Others, especially private woodlot owners, were very concerned about any infringement on the rights of property owners.

It was pointed out that this issue is particularly significant in southern Ontario where a larger proportion of forest is privately owned and where old growth is highly fragmented; and that the issue will be acute where rare or endangered ecosystems are involved.

Cross-jurisdictional Issues. The private lands issue is institutionally problematic because it is cross-jurisdictional. MNR is responsible for forest policy and the health of forest ecosystems, but the Ministry of Municipal Affairs (MMA) and municipal governments have jurisdiction over private lands within municipal boundaries. And while municipal legislation gives municipalities some control through zoning, a number of participants had doubts about the commitment of municipalities to old growth and ecosystem protection. It was reported that one central Ontario municipality has stated that because MNR policies do not have bylaw status they will be ignored.

Another cross-jurisdictional issue involves the safety of those who work in the woods. According to Ministry of Labour regulations, standing dead trees (snags) must be removed in the harvest area to minimize hazards to workers. In ecological forestry, it might be desirable to leave many of these snags for biological reasons.

Many participants raised questions about how provincial policies would be put into effect on lands under shared jurisdiction or the sole authority of First Nations. With First Nations operating on a government-to-government basis with Ontario, PAC has heard that, in cases of sole or shared stewardship between First Nations and Ontario, provincial policies such as the Old Growth Conservation Strategy will be adopted at the discretion of the First Nations government in place.

Some consultation participants spoke of the need for cooperation across jurisdictional boundaries if ecosystem management is to become a reality. Still others spoke with concern about redundancy, overlap and the need for integration across sustainability and planning initiatives. Initiatives identified include MNR's Sustainable Forestry Initiatives, MNR's Natural Heritage Policy; the Ministry of the Envi-

"White and red pine are unlike most other boreal species in that selection harvesting, seed tree harvesting and shelterwood systems can all be effective."

Letter

"Many MNR foresters would like to be able to do somethina because they do support protection for old arowth. But they have to have some measure that can be understood by all field staff and implemented straight away, as soon as recommendations are made."

Participant, Sectoral workshop ronment's Environmental Bill of Rights; and the Ministry of Municipal Affairs' Commission on Planning and Development Reform in Ontario.

Local Input, Involvement and Control. A number of consultation participants pointed to the shared stewardship arrangement in the Temagami area as an important demonstration of the collaborative resolution of resource use conflicts. Aboriginal people, the nonnative community, local government and the scientific community are working together effectively to develop a "forest stewardship" plan for four townships. One participant reported, "It works very well, in the sense that we've never yet been deadlocked. It works because of mutual respect and understanding, and because the land has been taken out of the timber plans so we are not under immediate pressure."

Implementation Realities. Lastly, a number of recommendations and comments were made regarding the field practicality of the Policy Advisory Committee's recommendations.

Many people emphasized that policy initiatives will prove fruitless without the field resources necessary for implementation. As well, many felt that successful field implementation will be directly related to the way in which old growth is defined. In this view, a straightforward definition with quantified objectives and criteria would be optimal. Equally important, interim recommendations must be implementable in the short term.

Others emphasized the importance of fully utilizing MNR's field staff. Some participants argued that existing, district expertise should be favoured over outside consultants, if necessary with the support of specialized training. The expectation is that field office involvement will build commitment to policy and utilize a substantial local knowledge resource. Others added that field offices must be accountable for delivering on policy.

On a more general level, many people argued that successful implementation will depend on both the public's understanding of policy recommendations, and on how closely those recommendations mesh with the systems presently being used by resource managers.

# Appendix A: Members, Old Growth Policy Advisory Committee

### Brennain Lloyd

(Chair), North Bay, a community organizer working with

Northwatch, a regional environmental coalition of citizens groups across northeastern Ontario.

#### Vivienne Ball

Sault Ste. Marie, a Registered Professional Forester and Chief Forester with Lajambe Forest Products Ltd.

## **Tim Gray**

Toronto, Executive Director of the Wildlands League, a chapter of the Canadian Parks and Wilderness Society.

## Mary Laronde

Lake Temagami, Stewardship Director for the Teme-Augama Anishnabai.

### Warren Mazurski

Thunder Bay, Representative, Local 39, Communications, Energy and Paperworkers Union.

#### **Reverend Monica Moore**

Englehart, Englehart Pastoral Charge, United Church of Canada.

## Bill McGuinty

Kirkland Lake, Geologist for Queenston Mining Inc. and President of the Northern Prospectors' Association.

### Paula Neice

Kars, Senior Consultant in the consulting firm Ecologistics Limited

#### Fiona White

Port Hope, Science teacher, Port Hope High School.

### Dr. David DeYoe

Ex officio, Chair of the Scientific Advisory Committee.

# Appendix B: Members, Scientific Advisory Committee

**Dr. David DeYoe** (Chair), Manager, Applied Science and Technology, Ministry of Natural Resources

Dr. Adele Crowder, Queen's University, Department of Biology

Dr. Douglas Larson, University of Guelph, Department of Botany

Dr. Paul Maycock, University of Toronto, Department of Botany

Dr. Dennis Parkinson, University of Calgary, Department of Biological Sciences

David Peerla, Greenpeace, National Forests Campaign

Dr. Peter Quinby, Ancient Forest Exploration and Research

Dr. Jennifer Shay, University of Manitoba, Department of Biology

Dr. Daniel Welsh, Canadian Wildlife Service

# Appendix C: Methodology Used in the Preparation of this Report

This report is based on verbatim transcripts prepared by a court reporter during each of the six workshops held, as well as letters, submissions, records of telephone calls, reports prepared by the facilitators of the Sectoral and Resource Managers workshops, and questionnaire responses. All material was provided to the consultant in hard copy and as computer files. Taken together, this is the raw data for this report — some five hundred single spaced pages of text, plus 250 questionnaire responses.

The first step in preparing the report was a systematic, thematic analysis of the data. The material was read and reread, and eighty—three separate themes were identified. All of the raw material was then coded by theme, and the codes were inserted in the computer files. Then the codes were reviewed and a tentative plan for the report was developed, with a set of codes assigned to each section of each chapter. Finally, a computer program was used to sort the data, bringing together all material on each theme, in the order in which the writer expected to use it. For example, a sort request for every reference to succession would collect all portions of the data coded as "succession", from across all of the public input sources. When the time came to write about the public thoughts on succession, that was the material to be reviewed.

This procedure is known in academic circles as qualitative data analysis, and is well respected. But always, in this type of work, the true test is the evaluation of those who were part of the process. Do the researcher's observations make sense? Do they fit the reality as experienced? To ensure that this is the case, this report has been carefully reviewed and edited by PAC members and its Secretariat staff.

